

Michigan's Safe Drinking Water Act, 1976 PA 399, regulates public water supplies, including Type I community water supplies, and Type II noncommunity water supplies. The Act specifies the types and frequency of water sampling required to meet State drinking water standards.

The following is a summary of the sampling requirements for noncommunity water supplies (NCWS). **Only the drinking water standards for microbiology, nitrate, and nitrite are applicable to transient noncommunity water supplies.** Any NCWS using complete treatment for surface water must conform to additional standards for turbidity, *Legionella* bacteria, certain viruses, *Giardia lamblia*, acrylamide and epichlorohydrin.

Definitions

- Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water.
- Action Level:** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
- mg/l:** Milligrams per liter (mg/l) or parts per million
- "Monitor only" means sampling is required, but no maximum contaminant level has been established.

Microbials

BACTERIOLOGIC SAMPLING

(Standard frequency of sampling is monthly, quarterly, or annual, dependent on population served. The number of samples required is also dependent on population served.)

Contaminant	MCL(mg/l)
Total Coliform	Two positive samples (generally a routine and a repeat sample)

E. coli	One or more of the above positive samples also E. coli positive
---------	---

If coliform positive samples result, a supply is required to take a minimum of four repeat samples within 24 hours of notification.



Inorganic Chemicals

INORGANIC SAMPLING (WITH WAIVER)

(Standard frequency of sampling is one every three years. After three 3-year monitoring periods have been sampled and no metals detected, a supply may be waived to one sample every nine years)

Contaminant	MCL (mg/l)
Antimony	.006
Arsenic	.010
Barium	2.0
Beryllium	.004
Cadmium	.005
Chromium	.1
Cyanide	.2
Mercury	.002
Selenium	.05
Thallium	.002

Asbestos monitoring is also a federal requirement; however, analysis for individual nontransients is waived unless asbestos cement materials are used in the water system.

NITRATE/NITRITE SAMPLING

(Standard frequency of sampling is annual for nitrate and one time sample unless notified for nitrite)

Contaminant	MCL (mg/l)
Nitrate	10
Nitrite	1

If nitrate or nitrite results exceed 5 mg/l or .0 mg/l respectively (50% of MCL), quarterly monitoring is required for nontransient supplies.

LEAD/COPPER MONITORING

(Standard frequency of sampling is two, consecutive six-month periods, and may then be waived to annual samples for two years, then sample every three years)

Contaminant Action Level (ppm)

Lead	0.015
Copper	1.3

Student/Employee Population	# Samples/ 6 months	# Samples after reduction
501 to 3,300	20	10
101 to 500	10	5
<101	5	5
Treatment technique requirements or fixture/plumbing replacements are triggered when the ninetieth percentile lead or copper level exceeds the action level during any monitoring period. The action level is NOT an MCL.		

Volatile Organic Chemicals

(The first 3-year compliance period requires quarterly sampling for a year and annual the next two years, however, a supply may be waived to one sample every six years, based upon at least one sample with no detects and proper wellhead protection)

Contaminant	MCL (mg/l)
Benzene	0.005
Carbon tetrachloride	0.005
1,2-dichloroethane	0.005
Trichloroethylene	0.005
1,2-dichloroethylene	0.007
1,1,1-trichloroethane	0.20
Para-dichlorobenzene	0.075
Cis-1,2-dichloroethylene	0.07
Ethylbenzene	0.7
O-dichlorobenzene	0.6
Styrene	0.1
Tetrachloroethylene	0.005
Toluene	1.0
Trans-1,2-dichloroethylene	0.1
Vinyl Chloride	0.002
Xylenes (total)	10.0
Dichloromethane	0.005
1,2,4-trichlorobenzene	0.07
1,1,2-trichloroethane	0.005
1,2-dichloropropane	0.005
Monochlorobenzene	0.1

NOTE-If VOCs have been detected and confirmed, four consecutive quarterly samples during a 3-year monitoring cycle is required for the contaminants listed above as well as:

Contaminant	MCL (mg/l)
Dibromochloropropane (DBCP)	0.00005
Ethylene Dibromide (EDB)	0.00005

Synthetic Organic Chemicals

(Four consecutive quarterly samples in a 3-year monitoring cycle is required. A supply that serves > 3,300 persons and that has no detect may reduce to not less than 2 quarterly samples in a year during the next 3-year compliance period. A supply that serves < 3,301 persons may be reduced to one sample per 3-year monitoring

period. However, a supply may be waived to one sample every six years, based upon at least one sample with no detects and low vulnerability as determined by sanitary survey.

Contaminant MCL (mg/l)

Alachlor	0.002
Aldicarb	0.003
Aldicarb sulfoxide	0.004
Aldicarb sulfone	0.002
Atrazine	0.003
Benzo(a)pyrene	0.0002
Carbofuran	0.04
Chlordane	0.002
Di(2-ethylhexyl)adipate	0.4
Di(2-ethylhexyl)phthalate	0.006
Dibromochloropropane	0.0002
Dinoseb	0.007
Dioxin (2,3,7,8-TCDD)	0.00000003
Endrin	0.002
Ethylenedibromide	0.0005
Heptachlor	0.0004
Heptachlor epoxide	0.0002
Hexachlorobenzene	0.001
Hexachlorocyclopentadiene	0.05
Lindane	0.0002
Methoxychlor	0.04
Oxamyl (vydate)	0.2
Pentachlorophenol	0.001
Picloram	0.5
Polychlorinated biphenyls	0.0005
Simazine	0.004
Toxaphene	0.003
2,4-D	0.07
2,4,5-TP silvex	0.05

If the supply is vulnerable to pesticides/herbicides, four consecutive quarterly samples in a 3-year monitoring cycle is required for the contaminants listed above, as well as:

Contaminant	MCL (mg/l)
Glyphosate	0.7
Endothall	0.1
Diquat	0.02
Dalapon	0.2

Monitoring for Dioxin (2, 3, 7, 8-TCDD) is also a federal requirement, but analysis for individual nontransient systems has been waived on a statewide basis unless specific site concerns warrant testing.

Frequencies

The frequencies listed are approximate, but may vary based upon the frequencies assigned to a supply by the local health department having jurisdiction. The assignment of these frequencies may be influenced by many factors, including the compliance history of the supply. Contact the local health department for more information specific to a supply.

Waivers

Waivers will be determined on the basis of vulnerability. Vulnerability will be based on:

- Well construction
- Adequate isolation from contaminants
- Aquifer vulnerability
- Proximity to bulk storage or manufacture of pesticides or herbicides
- A sanitary survey of the water supply
- Previous sample results

Laboratories

Under Act 399, it is a requirement that a Type I or Type II water supply must use a laboratory certified by the State of Michigan to analyze samples for any of the above mentioned contaminants. The Michigan Department of Environmental Quality laboratories may be used, or a supply may retain the services of another certified laboratory to meet this requirement; however, the supply is responsible for all fees charged for this service.



The supply must insure that the appropriate sampling bottles are being used for each specific test. Contact your laboratory for more information.

Reporting and



Violation Information

The water supply is responsible for reporting the results of all sampling to the local health department having jurisdiction. Any failure to sample or report the results of any samples within the monitoring period may result in a violation under Act 399. Also, the supply is responsible to take action if an MCL or action level exceedance occurs, such as further sampling, investigation, etc.

- All monitoring or MCL violations require public notice be posted or distributed to customers.
- Failure to resolve violations may result in formal legal action, which may include civil fines.
- All violations are reported to the DEQ and the Environmental Protection Agency. The violations are made available to the public by EPA via the Internet at www.epa.gov/enviro/html/sdwis/sdwis_ov.html

How do I find out more?



The environmental health staff at the county/district health departments provide direct services to water supply owners in their jurisdictions. Questions regarding sampling requirements for your facility should be directed to your local health department. Noncommunity program staff may be reached at the Water Bureau, in Lansing at 517-241-1370. Upper Peninsula inquiries may be directed to 906-346-8530.

The Type II Noncommunity Water Supply website address is:
http://www.michigan.gov/deq/0,1607,7-135-3313_3675_3692---,00.html



The WSSN assigned to your facility is: _____

Water Bureau
Drinking Water and Environmental Health Section
Noncommunity Unit
Phone: 517-241-1370 Fax: 517-241-1328

The Michigan Department of Environmental Quality (MDEQ) will not discriminate against any individual or group on the basis of race, sex, religion, age, national origin, color, marital status, disability or political beliefs. Questions or concerns should be directed to the MDEQ Office of Personnel Services, P.O. Box 30473, Lansing, MI 48909.

State of Michigan
Jennifer M. Granholm, Governor

Department of Environmental Quality
Steven E. Chester, Director

NONCOMMUNITY WATER SUPPLIES



MONITORING REQUIREMENTS AND MAXIMUM CONTAMINANT LEVELS



MICHIGAN DEPARTMENT OF
ENVIRONMENTAL QUALITY

WATER BUREAU